



Nebraska Resources

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NRC Completes DEMs and DOQs

By Mahendra Bansal

Production of Digital Elevation Models (DEMs) for the entire State has been completed, and the production of Digital Orthophoto Quadrangles (DOQs) will be completed by the end of February, 1999. Initiated through a work-share agreement with the U.S. Geological Survey in November 1995, the joint project was targeted for completion in three years.

A DEM consists of a sampled array of elevations for a number of ground positions at regularly spaced intervals that are referenced horizontally to a latitude/longitude coordinate system. A DOQ is a digital image of an aerial photograph with image distortion from aircraft altitude, landscape relief and camera lens orientation removed and corrected. The ground features are, therefore, displayed in their true ground position.

With the completion of this project, it now gives Nebraska a new electronic mapping database on which a variety of geographic information can be placed. This is an accomplishment for which the Natural Resources Commission is proud. The DEMs and the compressed DOQs are now available at no cost over the Internet.

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Natural Resources Enhancement Fund

Natural Resources Enhancement Fund

receipts for the second 12-month period of the fund's existence totaled **\$2,282,580.29** compared to \$2,409,740.28 for the first year. The fund is financed by a one dollar per ton fee on fertilizer sold and is scheduled to remain in place until December



31, 2000. The fees are paid to the Department of Revenue and are credited to the Enhancement Fund's account administered by the Natural Resources Commission. **Total receipts for the two-year period are \$4,692,320.57.** The receipts are distributed to the state's 23 natural resources districts based on a formula (20% equal, 20% based on Ground Water Management Areas, and 60% on amount of fertilizer sold in each NRD) and are to be utilized for water quality programs. The districts match one local dollar for every three dollars received from the fund.

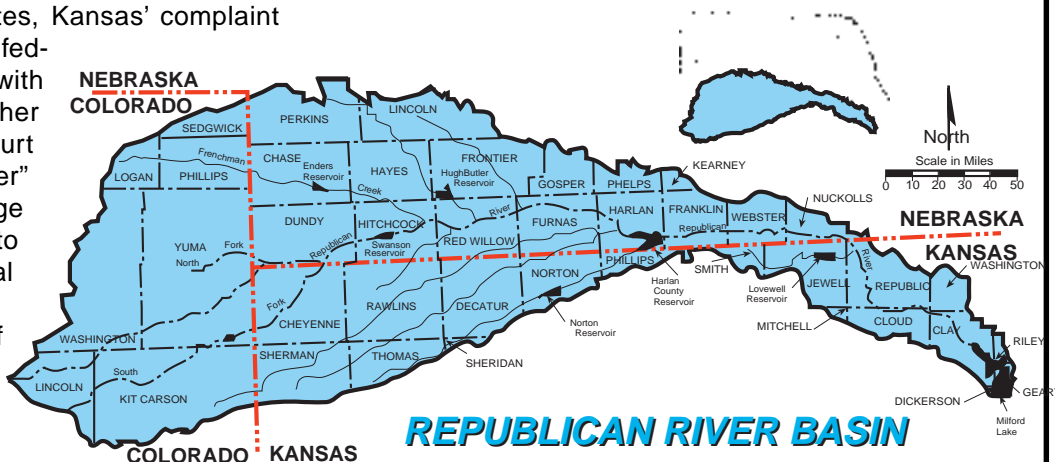
U.S. Supreme Court Accepts Republican River Case

By Jim Cook

On Tuesday, January 20, 1999, the U.S. Supreme Court agreed to accept a lawsuit filed by the State of Kansas against the State of Nebraska. Kansas is alleging that Nebraska is allowing the use of more water than it is entitled to in the Republican River and its tributaries. The suit is based upon a compact entered into between the two states and the State of Colorado in 1942.

Like any suit between states, Kansas' complaint does not go through lower level federal courts, but is filed directly with the U.S. Supreme Court. In other interstate water disputes, the court has appointed a "special master" to, in effect, serve as a trial judge for such cases. That is likely to happen within the next several months for this case.

We will keep the readers of these newsletters informed as the Kansas suit and related matters progress.



DIRECTOR'S COMMENTS

The Federal Emergency Management Agency (FEMA) has been promoting a new program named **Project Impact**. The goal is to ensure disaster resistant communities. While it may be impossible to have any community totally disaster resistant, a thorough analysis of hazards that could strike a community with protective measures applied will pay great future dividends.



Beatrice, Nebraska is the state's first **Project Impact** community. The city has had long term flooding problems; in fact there have been 64 recorded floods since records have been kept. In addition to the long record of flooding, in May of 1996, the city experienced an F3 tornado, which resulted in major property damage.

On January 22, 1999 Mayor John Bartels and City Staff members cordially welcomed a large group of government officials to display what has been accomplished to make Beatrice disaster resistant and outline future plans. With great foresightedness, Beatrice started with a disaster relief plan after a record height flood in 1973. Since that time they have removed over 160 residences from harm's way. The tornado of 1996 also brought recognition of vulnerability. The cities siren warning system was powered by electricity, and thus if power is lost, the warning system fails. A new battery powered system is being installed. A new DTN Early Warning System has been installed in the communications center to provide A storm cave for a large trailer park will also be installed. Local flooding by an undersized storm sewer system in one area will be upgraded. City officials are extremely proud of their new \$2,600,000 Service Center, built far from a floodplain area. Their old Service Center was located near the Blue River and it was inundated three times between 1973 and 1993. One of those floods rose so rapidly that trucks and road graders were stranded. One of the final things in the plan is to move a large electric sub-station that serves a portion of the city out of the floodplain. It is quite obvious that electricity and water don't mix well as the facility had to be "de-energized" during many floods creating a power outage in sections of the city.

Those present for the "signing ceremony" for recognition of Beatrice as a **Project Impact** city included Governor Mike Johanns, Lieutenant Governor David Maurstad, Congressman Doug Bereuter, State Senator Dennis Byers, staff members representing Senators Kerrey and Hagel, Stanley Heng, the Nebraska Adjutant General, Mike Armstrong, FEMA Associate Director for Mitigation from Washington D.C. and FEMA Regional Director John Miller from Kansas City as well as many past mayors and city officials from Beatrice.

Governor Johanns congratulated Beatrice citizens for "*being the first community in the state to adopt **Project Impact***" and indicated they were "*setting an example for the rest of the state.*" Lieutenant Governor Maurstad, who was a former Mayor of Beatrice, Nebraska, spoke highly of the great cooperation between citizens and city officials to develop a disaster free plan. Congressman Doug Bereuter, who has a longstanding association with FEMA remarked "*I am really pleased to see how things are moving and I fully agree you are setting an outstanding example.*"

It was an afternoon well spent with community leaders with the great foresight in recognizing that many things could be done to mitigate future weather related losses.

EQUAL OPPORTUNITY/AFFIRMATIVE ACTION

As an agency of state government the [Natural Resources Commission](#) is an Equal Opportunity/Affirmative Action Employer and is committed to these principles. As part of that responsibility the agency has adopted an Affirmative Action Plan which outlines the agency's policies with respect to employment and establishes goals for the implementation of those policies.

A policy statement supporting the principles of equal employment opportunity and affirmative action is included in the Plan. The policy clearly states the Natural Resources Commission's support for equal employment opportunity and affirmative action for all persons without regard to their race, color, religion, sex, age, national origin, marital status, mental or physical disability or political affiliation. Another part of the Plan is an agency policy statement regarding sexual harassment, which outlines procedures for dealing with any instances of sexual harassment. Goals established within the affirmative action plan include increasing the representation of females within the professional staff, increasing the representation of social minorities in the staff and continuing to provide equal employment/affirmative action training opportunities to all staff, with emphasis in the supervisory staff.

Nebraska Soil and Water Conservation Program Update

Approved Soil and Water Conservation Practices	Program Accomplishments in 1998	Total Program Accomplishments 1977-1998
Terraces	430 miles	9,758 miles
Terrace Underground Outlets	322,654 feet	3,508,147 feet
Water Impoundment Dams	66	1,148
Grade Stabilization Structures	35	584
Irrigation Tailwater Recovery Pits	9	834
Diversions	120,262 cu. yds.	1,284,174 cu.yds.
Grassed Waterways	219 acres	10,135 acres
Water and Sediment Control Basins	47	361
Dugouts for Livestock Water	31	512
Pasture or Range Seeding	1,911 acres	33,380 acres
Critical Area Plantings-Grass	29 acres	442 acres
Windbreaks	1,990 acres	28,607 acres
Windbreak Renovations	50 acres	3,063 acres
Irrigation Return Pipe	23,367 feet	519,937 feet
Planned Grazing Systems	196,401 acres	2,380,541 acres
*Irrigation Surge Valves	0	632
Irrigation Water Management	34,022 acres	79,369 acres
Repair of Practices	18	37
Stream Bank Stabilization	1	3
Republican Basin Water Meter Program	9	9
TOTAL DOLLARS	\$3,734,806	\$49,422,636

* Rescinded as separate practice effective 7-1-94

Figures are rounded to the full unit

The **Nebraska Soil and Water Conservation Fund** was established in 1977 to provide state financial assistance



to Nebraska landowners installing approved soil and water conservation measures. The fund is administered at the state level by the **Natural Resources Commission** and is coordinated by the state's **23**

Natural Resources Districts at the local level with technical assistance provided by the **Natural Resources Conservation Service**. For additional information on the Soil and Water Conservation Fund, contact the Nebraska Natural Resources Commission or your local Natural Resources District.

Republican River Water Meter Program Operational

The program adopted and funded by last years legislative action to install water meters on water wells in the Republican River alluvium is now operational. Each of the four Natural Resources Districts involved (Upper Republican, Middle Republican, Lower Republican, and Tri-Basin), have established a program to work with well owners and operators to install the meters. The Department of Water Resources has provided the NRDs with detailed information on the registered wells in the alluvium and will be working with the NRDs and the Natural Resources Commission to update the information as the program progresses. The first claims for cost-share assistance on the purchase and installation of meters were paid in December. The NRDs have reported a high level of interest and cooperation on the part of well owners and operators throughout the basin.

1 9 9 9 Nebraska Water Conference

The **28th Annual Nebraska Water Conference** will be held in Kearney, Nebraska at the Regency Inn on **March 9th and 10th, 1999**. The conference will continue it's theme of "**Nebraska Water 2000**", a three-year theme looking into information, planning and management for the future. The annual conference brings together a variety of people and their perspectives to discuss issues important to Nebraska and the nation. For additional information on the conference please contact the **Nebraska Water Center at (402) 472-7530**.

(DEMs and DOQs Continued)

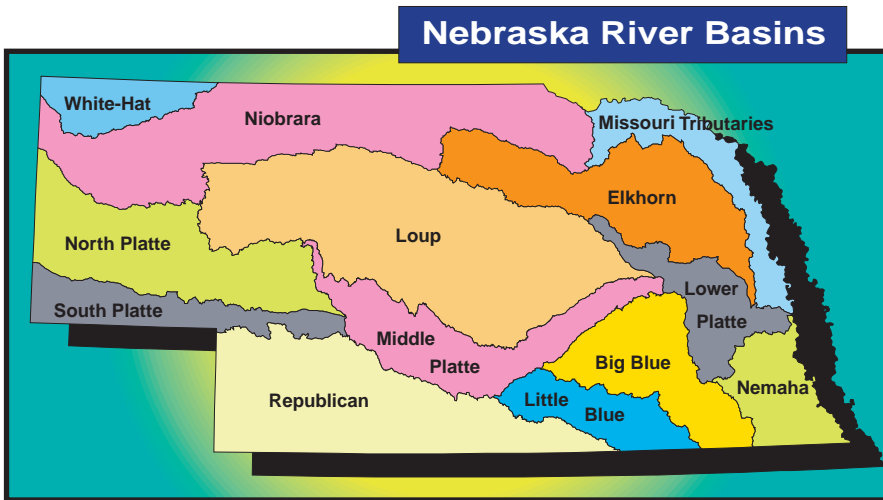
The DEM and DOQ databases serve a variety of purposes from base maps to field references for natural resources and earth science investigations and analyses. They are used extensively by various levels of government. The NRC uses them for digitization of soil surveys, floodplain delineation, and terrain modeling purposes. Other applications include precision farming, parcel/field mapping, forest/land use inventory, watershed planning, various project studies and decision-making processes.

The completed DEMs/DOQs are already having an early payoff for Commission efforts to provide floodplain management information to local governments. The DEMs are being used to accelerate the production of floodprone area maps. These floodprone area maps will help local governments and individuals with their community floodplain planning.

The NRC Data Bank, as part of its data dissemination activities, has also developed a Map Object and Internet Map Server application to dynamically process the DEM/DOQ databases over the World-Wide-Web. It allows one to interactively display, pan, zoom, locate and identify a user-specified map region over the Internet.

For additional information on how these new electronic databases can be accessed and utilized, please contact the Natural Resources Commission's Data Bank.

Six River Basin Caucuses Held



Six river basin caucuses were held in January to select members of the Nebraska Natural Resources Commission. The caucuses resulted in the **selection of six incumbents and one new member** to four-year terms on the Commission. The Missouri Tributaries River Basin has two representatives on the Commission.

Incumbents selected were: *Vince Kramper and Beverly Donaldson-Missouri Tribs River Basin, Frank Bartak-Loup River Basin, Dale Watermeier-Lower Platte River Basin, Richard Jiskra-Big Blue River Basin, Don Larson-Nemaha River Basin, and newly selected Richard Hahn-South Platte River Basin.*

The Nebraska Natural Resources Commission consists of 16 members. Three members are appointed by the governor to represent the specific interests of Nebraska's municipal water users, surface water irrigators, and ground water irrigators. The remaining 13 members are selected to four-year terms at caucuses of the Natural Resources Districts directors in Nebraska's River Basins.

The Natural Resources Commission members and staff wish to thank Clifford Welsh for his dedicated service while on the Commission. Clifford served on the Commission, representing the South Platte River Basins interests from 1983 until this January. Cliff chose not to run for reelection.

Meet Your New Commission Members

Bob Hahn

Representing:

South Platte River Basin

Hometown: Sidney

Hobbies: Interested in Outdoors and Natural Resources



Bob Hahn represents the interests of the South Platte River Basin on the Nebraska Natural Resources Commission. Born and raised near Valentine he has always had an appreciation for the "outdoors" and natural resources. Bob attended Chadron State College for two years before attending the University of Idaho where he earned a degree in Wildlife Management. He is a past manager and board member of the South Platte NRD and now works for Cabella's of Sidney. Married and the father of two boys, Bob believes in the importance of "a strong family unit". He also thinks that "We need an appreciation of previous generations for our standard of living. We need to look back to help appreciate what we see looking forward." Bob also believes that "Everyone should participate to some degree, in some shape or form in public service."

Ron Nelson

Representing:

Nebraska's Surface Water Irrigators

Hometown: Minden

Hobbies: Sons, Golf and Snow Skiing



Ron Nelson represents the interests of Nebraska's surface water irrigators on the Nebraska Natural Resources Commission. Ron is filling the vacancy left after the death of his father, Wilber Nelson, last May. Born and raised in the Minden area of Nebraska, Ron has farmed irrigated land since graduating from the University of Nebraska in 1979.

The father of two sons he takes pleasure in spending as much time as possible with them, enjoying golf and biking. He is a member of the Minden Optimists Club, Kearney Elks Club and involved with his boys sporting activities at Minden High School. He likes traveling, Nebraska football, any form of history and jeopardy. When asked what he really likes, Ron replied "life".

NRDF Projects Under Review

Project Location Map

By Tom Pesek



Natural Resources Commission staff and representatives of several other state agencies are currently reviewing four proposed projects. The **Papio-Missouri River NRD** has submitted a project proposal for a **Floodway Purchase Project** in the Elbow Bend and Iske Park residential areas along the Missouri River in Sarpy County. This voluntary buyout project is to be coordinated with the Federal Emergency Management Agency's Hazard Mitigation Grant Program. The NRD has indicated it will request \$562,500 in grant funds from the Nebraska Resources Development Fund for this project which has a total estimated cost of \$3,000,000.

Two project applications were recently received from the **Lower Platte South NRD**. The NRD has requested a grant of \$2,621,662 from the Fund for two components of the comprehensive plan that has been developed for the **Stevens Creek Watershed Project** located immediately east of Lincoln. These funds

would be used to construct 10 small flood retarding reservoirs and install a large culvert near Fletcher Avenue and 84th Street.

The NRD has also submitted an amended application for Site 7g in the **Weeping Water Creek Watershed Project**. This amended application calls for additional land acquisition and recreation facility development at this currently approved floodwater retarding structure that is to be built downstream of Elmwood. The original 96 surface acre reservoir would be increased to 180 acres and the reservoir's mean depth would be increased by two feet. The NRD is requesting a NRDF grant of \$1,914,615 and intends to utilize other funds from the Game and Parks Commission and the Department of Environmental Quality as well.

The **City of Gering** has submitted an application for the **Gering Canal Flood Control (Phase 3) Project**. This flood control project involves installation of a side outlet structure in the Gering Canal on the west side of Gering and conveying flood waters under Highway 71 via underground pipe to an existing drain. Overflows from the canal, which intercepts considerable overload runoff has resulted in significant damages to several residences in the western part of Gering in recent years. The city has requested a NRDF grant of \$119,100 for this project.

At its January 27th meeting the Natural Resources Commission advised the Papio-Missouri River NRD that it could proceed with a project application and feasibility report and directed that it respond to several comments/questions that were developed during review of the project proposal. It is anticipated that staff and other agency review of the project applications will be completed and Commission action will be taken on them this spring.

NRDF Projects Under Review

Project	Sponsor	Funds Requested
(1) Floodway Purchase Project	Papio-Missouri River NRD	\$562,500.00
(2) Stevens Creek Watershed Project	Lower Platte South NRD	\$2,621,662.00
(3) Weeping Water Creek Watershed Project	Lower Platte South NRD	\$1,914,615.00
(4) Gering Canal (Phase 3) Flood Reduction Project	City of Gering	\$119,100.00

Watershed Tracts Auction Results

By Tom Pesek

Public auctions regarding two tracts in the Upper Little Nemaha Watershed were conducted on January 13, 1999. A 5.52-acre tract that included a 30-year old ranch style house at Site 26 east of Bennet garnered a high bid of \$113,000 from Matthew Johnson of Lincoln, a Bennet area native. An 80-acre tract at Site 34 southwest of Palmyra received a high bid of \$1,520/acre or \$121,600 from Bryan Thomsen of Brunswick, Georgia. He also is a native of the Bennet area.

The Site 26 acreage auction was held on site with approximately 25 people present and the Site 34 auction was held at the American Legion Building in Palmyra with approximately 50 people present. Don Vrana of Syracuse was auctioneer.

The Nemaha NRD utilized the Small Watersheds Flood Control Fund to purchase the acreage at Site 26 in 1996 for \$160,000 and the 80-acre tract at Site 34 for \$74,000 in 1995. The high bids were approved by the Natural Resources Commission at its January 27, 1999, meeting. The proceeds from these land sales will be returned to the Fund to

assist sponsors with the acquisition of land rights at future flood damage reduction projects.

The Small Watersheds Flood Control Fund was established by the Legislature in 1963 to assist local sponsors in the acquisition of land rights (easement or fee titles) for flood damage reduction projects. If acquired in fee title, the tract must be disposed of within ten years of purchase. Each tract is offered at appraised value to local subdivisions of government and selected state agencies who might be interested in the tract. If none decide to purchase it, the tract is then sold at public auction.

***Our Home Page
now has a new look***

**NRC
Homepage**

NEBRASKA
Natural Resources
Commission



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***Your comments and
suggestions are
welcomed***

STATE OF NEBRASKA

Mike Johanns, Governor



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